Report of Conference

June 7 & 8, 2012 – Paris, France

www.polyphenols-site.com
The 6th edition of ISANH Polyphenols 2012 was held in Paris in June 7 & 8, 2012 and brought together experts from academia and industry, established researchers and young, emerging talents from almost all continents.

These two days were very rich and active with high quality debates about scientific advances. Indeed, experts' contributions highlighted the tremendous opportunities as well as the challenges that are associated with one of the most fascinating classes of secondary plant metabolites.

Recent Advances and Clinical Applications of Polyphenols in health were highlighted by oral & poster presentations.

Some critical questions concerning clinical studies and claims were discussed. The impact of polyphenols consumption on consumers and how marketing can not go faster than sciences advances (how to avoid speculations as for resveratrol)

One of the main conclusions of the first day was that polyphenols will play a central role in the prevention of many chronic diseases. Many presentations showed the impact of polyphenols on diabetes, obesity, cancer, neurodegenerative and cardiovascular diseases. There is no doubt that phenolic compounds hold promise for application as functional food ingredients and nutraceuticals, natural additives in foods and feeds, and even as pharmaceuticals.

Polyphenols & Waste Valorisation from Fruits and Vegetables Processing

The aim of this session was to discuss how by-products of the fruit and vegetable industry (such as tomato peel, olive margin, paper waste, wine, beer, cider and palm industries) can be utilized for the recovery of polyphenols and other valuable components.

During this conference, by-products arising from processing of plant-derived raw materials were demonstrated to be excellent sources of phenolics, but economically feasible approaches are still needed for their exploitation.

Various processes and techniques were suggested for the extraction, fractionation and isolation of target compounds. In order for phenolics to be applied as bioactive compounds, more data needs to be generated concerning their efficacy, bioavailability, metabolism, their chemical and physical behavior in various matrices during processing, and obviously their potential toxicity. Despite significant advances in the analysis of phenolic compounds, there are still challenges when it comes to their characterization and quantification.

Future congresses on Polyphenols Applications will address, among others, these topics in order to obtain a more complete picture of the potential of phenolics.

On behalf of the Organizing Committee and ISANH, we would like to express our sincere gratitude to all speakers and participants for their contribution during these two days. It gave us a great pleasure to thank all those who graciously supported Paris Polyphenols 2012 and who have been involved in the organization of the conference.

We look forward welcoming you next year in Germany for the 7th ISANH Polyphenols Congress.

Pr Marvin Edeas - Chairman of ISANH
Pr Andreas Schieber - Chairman of Scientific Committee
Scientific Programme

Day 1 – Thursday 7

8h30  Welcoming & Registration

9h00  General Introduction: Why Paris Polyphenols 2012?
      Marvin Edeas, Chairman of ISANH, Paris, France

Session 1:
Polyphenols & Health: The Clinical Evidences

9h15  Randomized Clinical Trial concerning Effects of Polyphenols on Inflammation and Atherosclerosis
      Ramon Estruch, Department of Internal Medicine, Hospital Clinic, IDIBAPS, University of Barcelona and
      CIBER Obesity and Nutrition, Institute of Health Carlos III, Barcelona, Spain

9h45  Randomized Controlled Trials on Olive Oil Polyphenols Benefits for Human Health
      • Beneficial effects of olive oil on LDL oxidation
      • Eurolive & Nutrigenomics: Recent Data
      Maria Isabel Covas, Cardiovascular Risk and Nutrition Research Group, IMIM-Institut de Recerca Hospital
      del Mar, Barcelona, Spain

10h15 Discussion

10h30 – Coffee Break & Posters Presentation

11h00 Natural Polyphenols in Cancer Therapy: from Bench to Bedside
       José M. Estrela, Department of Physiology, Faculty of Medicine and Odontology, University of Valencia,
       Valencia, Spain

11h30 Phytochemical Antioxidants Characterization and Antiradical Activity of Phenolic-Rich Products
       Boris Nemzer, Director of Research and Development, VDF FutureCeuticals, Momence, USA

12h00 Discussion

12h30 – Lunch Break & Posters Presentation

13h45 Paris Polyphenols 2012 Lecture: Hydrolyzable Tannins: From Folk Medicine to Chemical Biology via
      Wine Sciences
      Stéphane Quideau, Director of Group Polyphenols, Bordeaux, France

14h15 Development of Brain-Targeted Grape-Derived Polyphenolics for Alzheimer’s Disease Prevention and
      Therapy
      Giulio Maria Pasinetti, Director, Center of Excellence for Novel Approaches to Neurotherapeutics, Mount
      Sinai School of Medicine, The Saunders Family Chair, New York, USA
14h35 Short Oral Presentations Session

**Effect of Omnivin 20R on Oxidative Stress in Humans – Clinical Study Results**
*Kristof Van Belleghem, R&D Project Development Manager, Ajinomoto Omnichem, Wetteren, Belgium*

**A Double-Blind, Randomized, Controlled Clinical Trial Evaluating the Efficacy and Tolerance of a Novel Phenolic Antioxidant Skin Care System Containing Coffea Arabica and Concentrated Fruit and Vegetable Extracts**
*Debbie Palmer, Dr Palmer’s LLC, Greenwich, USA*

**Modulation of Oxidative Damage by Green and Black Tea: Role of Smoking and Gender**
*Iman Hakim, University of Arizona, Mel & Enid Zuckerman College of Public Health and the Arizona Cancer Center, Tucson, USA*

**Polyphenolic Rich Tropical Fruits and Green Tea in the Management of Diabetes: Clinical and Molecular Evidence**
*Theeshan Bahorun, ANDI Centre for Biomedical and Biomaterials Research, University of Mauritius, Republic of Mauritius*

**Correction of Oxidative Stress in Diabetes Mellitus Patient with Natural Polyphenols**
*Andreas Sketers, Riga Stradins University, Riga, Latvia*

**Potential of Polyphenol-Rich Products to Improve Aging-Related Endothelial Dysfunction**
*Valérie Schini-Kerth, Strasbourg University, Strasbourg, France*

**Iron in Diet May Modify Tea Antioxidant Properties**
*Antonios E. Koutelidakis, Unit of Human Nutrition, Department of Food Science and Technology, Agricultural University of Athens, Greece*

**Phenolic Compounds from Siberian Larch – Promising Pharmaceutical Substances**
*Nikolay Nifantiev, Zelinsky Institute of Organic Chemistry, Russian Academy of Science, Moscow, Russia*

**Solid State Production of Bio-Active Mechanocomposite for Extraction of Polyphenols from Plant Raw Material**
*Igor Lomovskiy, Institute of Solid State Chemistry and Mechanochemistry of the Siberian Branch of the Russian Academy of Sciences, Novosibirsk, Russia*

16h05 Concept and Health Related Properties of Non-Extractable Polyphenols: The Hidden Face of Dietary Polyphenols.
*Fulgencio Saura-Calixto, Institute of Food Science, Technology and Nutrition, Madrid, Spain*

16h25 Network Session around Drinks & Snacks – Posters Presentation & Exhibition Session

17h30 End of the first day

19h30 Speakers Dinner
Day 2 – Friday 8

Session 2:
Polyphenols & Waste Valorisation from Fruits and Vegetables Processing

9h00  Processing Waste from Fruits, Vegetables and Oilseeds: An Overview of Sources, Phenolic Profiles and Potential Applications
Andreas Schieber, University of Bonn, Germany

9h30  Conventional and Novel Techniques for the Extraction of Biologically Active Compounds from Processing By-products
Nigel Brunton, TEAGASC, Ashtown, Dublin, Ireland

10h00  Strategies for the Fractionation and Analysis of Polyphenols from By-products of Food Processing
Peter Winterhalter, University of Braunschweig, Braunschweig, Germany

10h30  Coffee Break & Posters Presentation

11h00  Adsorption and Ion Exchange Technology for the Recovery and Fractionation of Polyphenols from Food Processing By-products
Dietmar Kammerer, University of Hohenheim, Germany

11h30  Microencapsulation of Polyphenols Containing Extracts from Apple Pomace
Nadine Schulze-Kaysers, Institut für Ernährungs- und Lebensmittelwissenschaften, University of Bonn, Germany

12h00  Colour Stabilisation of Strawberry Anthocyanins through Co-Pigmentation with Phenolic Compounds from Distilled Rose Petals: a Practical Case
Kiril Mihalev, University of Food Technologies, Plovdiv, Bulgaria

12h30  Discussion

12h45  Lunch Break & Posters Presentation

14h00  Industrials Practical Case 1: Hydroxytyrosol Derived from Olive Oil Waste Water and its Industrial Applications in Health, Wellness and Lifestyle
Roberto Crea, Founder & CEO, CreAgri Inc., Hayward, USA

14h15  Industrials Practical Case 2: Adsorption and Alternative Technologies for Recovery and Purification of Polyphenols: Case Reports for Industrial Applications
Eldra Delannay, Purifunction, Loos, France
14h30  Turning Post-Distillation Oregano into Beneficial Bioactive Products  
Daphna Havkin-Frenkel, Rutgers the State University of New Jersey, New Brunswick, USA

14h45  Short Oral Presentations

Sea Buckthorn (Hippophae Rhamnoides L.): A Valuable Plant Rich in Polyphenolic Compounds  
Emilie Destandau, Institute of Organic and Analytical Chemistry, University of Orléans, Orléans, France

Ultrasound Assisted Extraction of Polyphenols from Black Chokeberry Waste  
Krasimir Dimitrov, Polytech’Lille, Lille Nord de France University, Villeneuve d’Ascq, France

Flavonols in Peels of Cactus Opuntia Ficus-Indica and Opuntia Macrorhiza Fruits  
Tamer E. Moussa-Ayoub, Technical University of Berlin, Institute of Food Technology and Food Chemistry, Berlin, Germany

15h45  General Discussion and Conclusion of the Conference

16h15  Network Session around Drinks & Snacks – Posters Presentation

17h00  End of Paris Polyphenols 2012